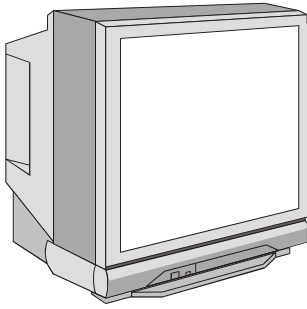
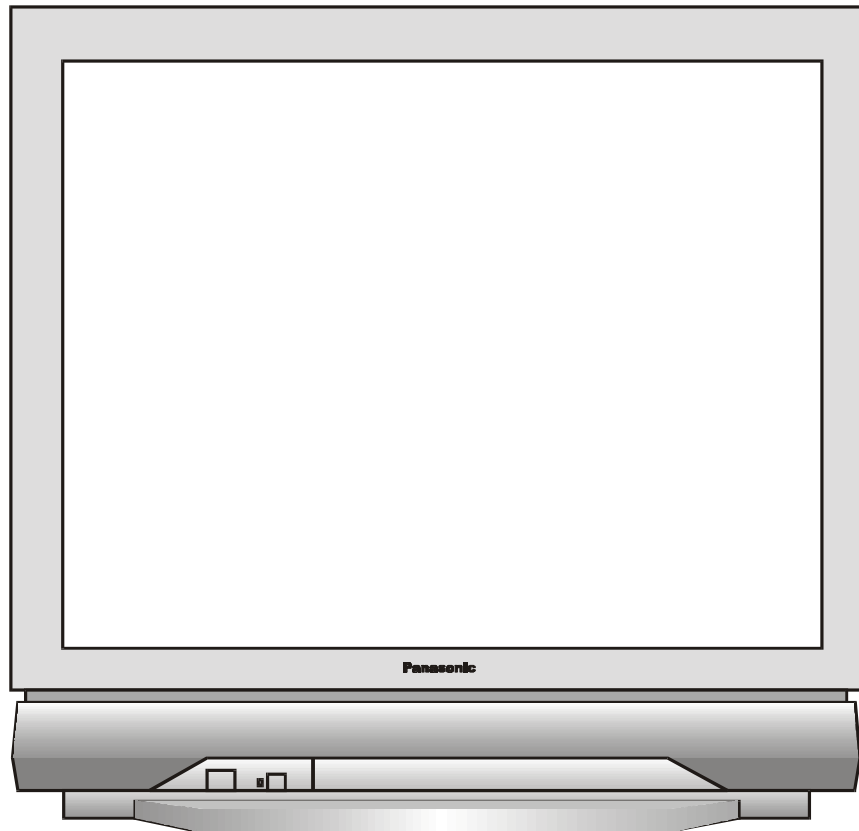


Panasonic



**Stereo Colour Television
With TELETEXT
Operating Instructions**

TX-68P200A



Please read these operating instructions completely before operating this set and retain the booklet for future reference.

Dear Panasonic Customer,

Welcome to the Panasonic family. We hope that you will have many years of enjoyment from your new Colour Television.

Please retain your proof of purchase along with these operating instructions. Space has been made available on the back page of this instruction book for recording the Serial Number. The Serial Number can be found on the back cover of the set and on the packing carton.

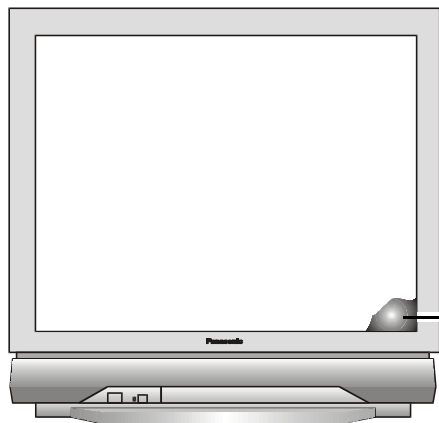
Important Information

Programme Location Numbers

This television comes to you "factory tuned" to all the major capital city broadcast stations. Adjustments to the tuning should not be necessary. However, if you have to make adjustments, please read these instructions carefully first. Throughout this booklet "Programme Location Numbers" are referred to. *These are memory locations into which you can tune television broadcast stations.* Any television station can be tuned into any Programme Location Number.

Picture Quality

All televisions are affected by Magnetic Interference.



Magnetic interference may come from such things as unshielded motors, moving the TV while it is switched ON, turning off a vacuum cleaner too close to the TV, lightning strikes nearby or many other things. The interference shows up as *coloured patches* which appear while the TV is switched ON.

A typical result may look like the picture shown.

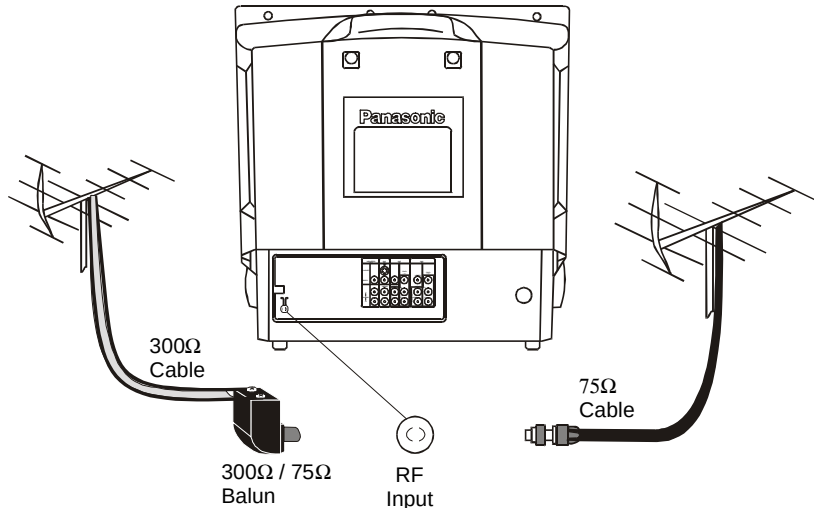
- Your Panasonic Television is designed to overcome this with the inclusion of a demagnetising (de-gaussing) function.
- To activate this feature, simply switch your Television OFF with the Power On/Off Switch (not with the remote control) for 30 minutes and then switch it back ON.
- If the television is to be left unattended for extended periods (several days or more), turn the power off to the unit. DO NOT leave in Standby mode.
- This will ensure that you enjoy the picture clarity as it was meant to be.

Refer to page 27 for operating instructions for the GEOMAGNETIC feature.

Getting Started

Connect the Aerial

The RF (Aerial) Input impedance of this television is 75Ω. If your aerial lead is 300Ω ribbon (two wires separated by a flat plastic sheet) you will require a 300Ω/75Ω Balun (not supplied) in order to connect your aerial to the television.

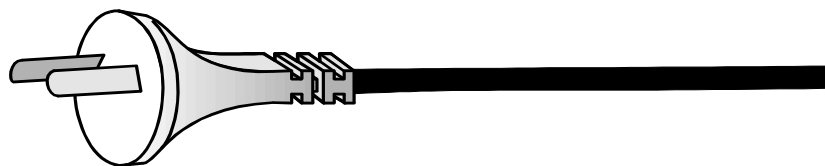


Note:

For your safety any external aerial should be installed by a reputable qualified installer and should comply with Australian Standard AS1417.1.

Connect the Power Plug

This television is designed for the Australian Standard Mains Voltage of 240V 50Hz.

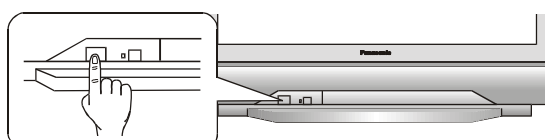


NOTE:

If the television is not going to be used for an extended period, remove the power plug from the wall outlet.

Turn on the Television

Push the Power Switch to turn the television ON.
Sit back and enjoy your new Panasonic television.



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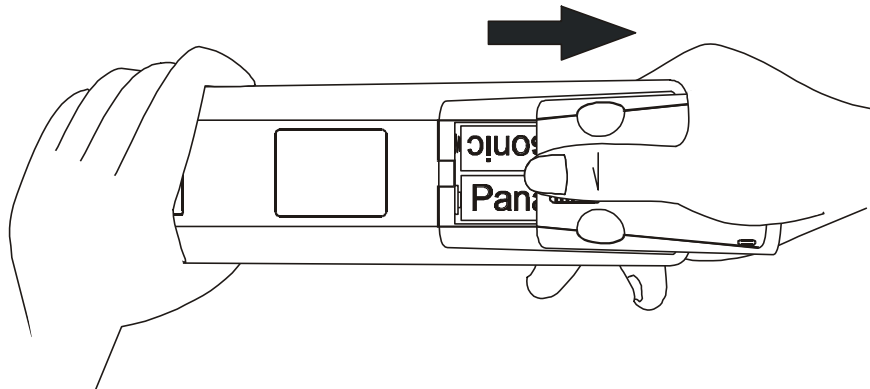
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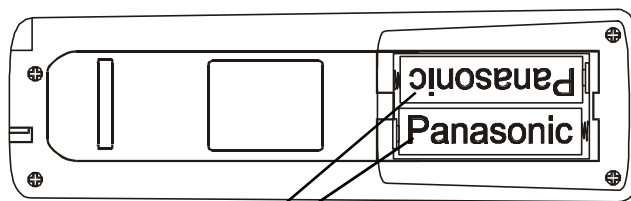
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Battery Installation and Replacement

Place your thumb on the battery cover triangle. Apply a slight downward pressure with the thumb and slide the cover back. This allows the cover to be removed.

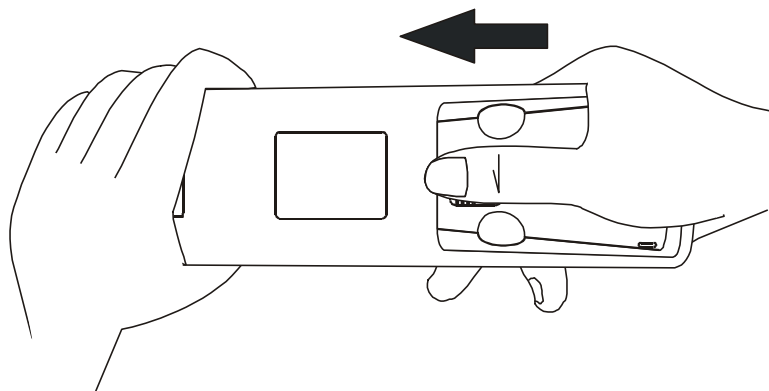


Insert the batteries ensuring the polarity is correct. The polarity is identified by the “+” symbol on the battery and the “+” and “-” symbols on the battery compartment. The springs inside the battery compartment connect to the negative terminal of the battery.



Two “AA” size batteries

Fit the battery cover and slide it forward until it “clicks” into place.

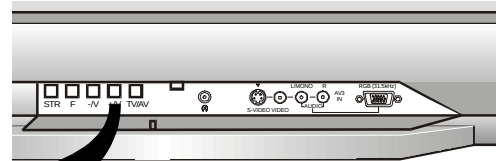
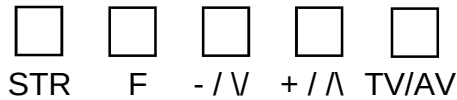


Battery Precautions

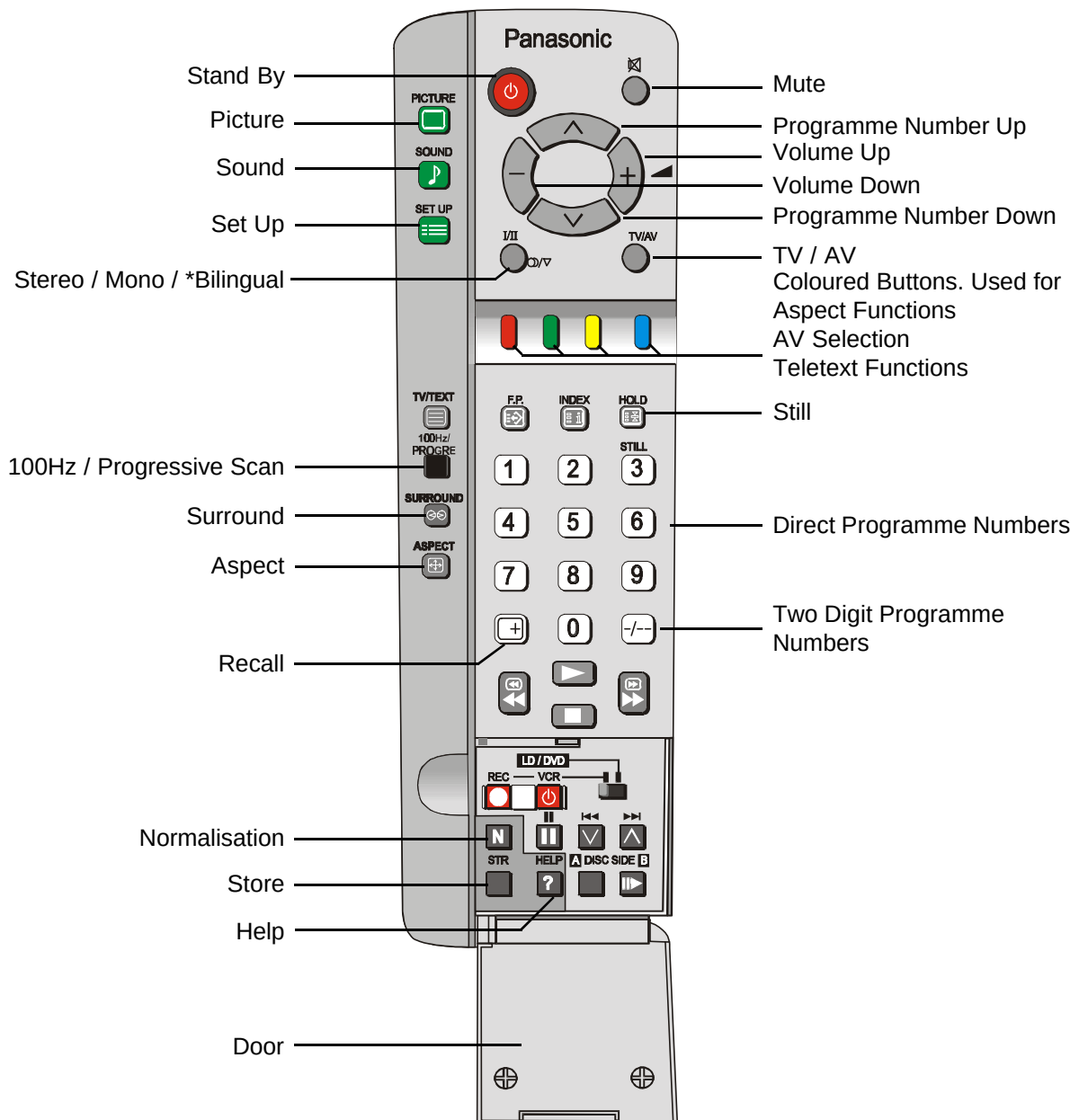
- **Do Not** use rechargeable batteries. Differences in size and performance may cause incorrect operation.
- **Do Not** mix battery types (Alkaline with zinc-carbon etc.)
- **Do Not** mix old and new batteries. Replace both batteries at the same time.
- **Do Not** attempt to recharge batteries.
- **Do Not** short circuit batteries.
- **Do Not** disassemble batteries.
- **Do Not** heat or burn batteries.

Control Panel Buttons

Open the control panel door to gain access to the Television Controls. Push the door at the point marked Δ to open. Push again to close.



Remote Control Television Buttons



For details of TELETEXT Operation remote control operation, please refer to page 19.

For details of VCR, LD and DVD remote control operation, please refer to page 28.

* Bilingual broadcasting is not currently available in Australia.

Television Control Panel Buttons

BUTTON

WHAT IT DOES



STR

STR

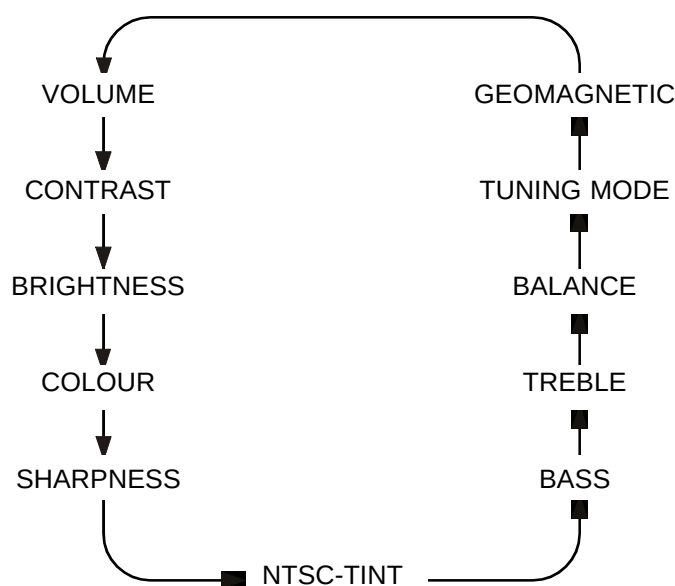
This button is used to store tuning information and other function settings. It is also used to start the menu demonstration.



F

F

The F button is used to select the on screen display functions. Push the button to select the following functions sequentially.



Notes:

NTSC-TINT: Only displayed when receiving NTSC signals.
 TUNING MODE: Not displayed when in AV mode.
 BALANCE: Not displayed when SURROUND is on.



- / V

- / V

This button is used to select the next lower programme number. It is also used with the F button to adjust function settings.



+ / ^

+ / ^

This button is used to select the next higher programme number. It is also used with the F button to adjust function settings.



TV/AV

TV / AV

This button is used to switch between the TV mode and the four AV modes.

Please refer to drawing on Page 7 for location of Television Control Buttons.

Remote Control Television Operation

BUTTON

WHAT IT DOES



STANDBY

The remote control button is used to turn the television into Stand-By mode. When the television is in Stand-By it is possible to turn it back on by Pushing this remote control Power Button, the Programme Number UP or DOWN Button (front panel or remote control) or any of the direct Programme Number Buttons.



PICTURE

This button is used to select the picture menu. Please refer to page 13 for detailed operating instructions.



SOUND

This button is used to select the sound menu. Please refer to page 15 for detailed operating instructions.



SET UP

This button is used to select the set up menu. Please refer to page 17 for detailed operating instructions.



STEREO / MONO

Pushing the button changes the mode from Stereo () to Mono () and back again. Normally the television will detect whether the broadcast signal is Mono or Stereo and will set the mode accordingly. If the Stereo signal is weak or if the receiving conditions are not the best, it is recommended that the Mono mode be manually selected.

BILINGUAL *

This system allows two languages to be transmitted on one signal. Switching between the Main (I) and Sub (II) positions selects the desired language.

* **Note:** Bilingual sound is not currently available in Australia.



100Hz / PROGRE

This button allows you to change the Picture refresh setting between AUTO, 100Hz MODE and PROGRESSIVE. Please refer to SCAN MODE on page 13.



SURROUND

This button switches the SURROUND Sound on and off.



ASPECT

This button is used to move through the different aspect options of AUTO, 4:3, 16:9 and S-ZOOM. Please refer to page 18.

Note: AUTO is only available in AV Mode.



RECALL

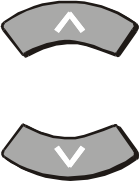
Pushing this button will display all current active functions. The functions that can be displayed include AV Number, Programme Number, Sound Option, Picture Option, Stereo or Mono and Off-Timer setting. Pushing the button again cancels the recall function and removes the text being displayed on the screen.

If the button is not Pushed within about 2 seconds it automatically switches to display the Programme Number or the AV Number and the Off-Timer setting.

Pushing the button again cancels the recall function and removes the text being displayed on the screen.

Please refer to drawing on Page 7 for location of Remote Control Buttons.

Remote Control Television Operation

BUTTON	WHAT IT DOES
	NORMALISATION The Normalisation Button is used to reset the television to factory set levels. Colour, Sharpness, Contrast, Brightness, Treble, Bass and Balance will be reset. The button will only operate if the menu is displayed on the screen.
	STR The STR (Store) button is used with a number of features to store settings after adjustments have been made or options have been set. It is also used in TELETEXT and tuning functions.
	HELP Pushing this button displays on screen instructions on how to adjust various settings and how to connect external equipment. Push the HELP button and select one of the options. Refer to page 11.
	SOUND MUTE Pushing this button reduces the sound from the television to nil. Pushing the button again returns the sound to the original setting. Pushing the Volume Up (+) or Down (-) will also restore the volume level setting.
	PROGRAMME NUMBER UP AND DOWN Pushing this button selects the next higher (^) or lower (v) Programme Number in sequence. Programme Numbers which have been "Skipped" (See page 29) will be bypassed when this button is used.
	VOLUME DOWN AND UP This button is used to increase (+) or decrease (-) the volume output level from the television.
	TV / AV Pushing the TV/AV Button will cycle between TV, the current AV Input, RGB and back to TV. While the AV indicator is still on screen the different AV inputs can be selected using the coloured buttons. RED = AV1 GREEN = AV2 YELLOW = AV3/RGB BLUE = AV4
	COLOURED BUTTONS These buttons are used for: - selecting different S-Zoom options - selecting different AV inputs - teletext functions
	Still Push this button to freeze the picture on the screen. Push it again to return to normal viewing.

Please refer to drawing on Page 7 for location of Remote Control Buttons.

Remote Control Television Operation

BUTTON

WHAT IT DOES



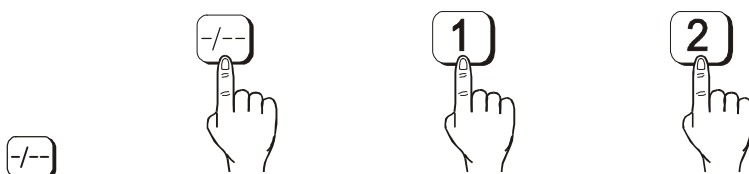
DIRECT PROGRAMME NUMBER SELECTION

Single Digit Programme Numbers (0 to 9) can be accessed directly by Pushing the corresponding number on the Remote Control Transmitter.

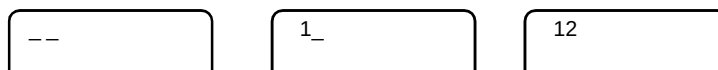
0 ~ 9

TWO DIGIT PROGRAMME NUMBER SELECTION

To directly access Programme Numbers 10 to 99, Push the “- / -” Button followed by the two digits required. For example, to select Programme Number 12:



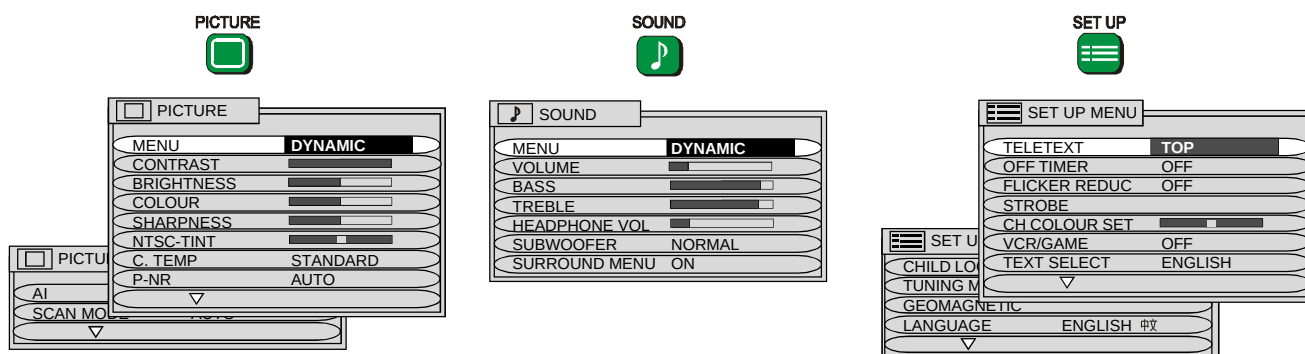
The On-Screen display will be as shown:



Please refer to drawing on Page 7 for location of Remote Control Buttons.

Using The On Screen Displays

Many features available on this TV can be accessed via the On Screen Display menu system. Use the remote control to access and adjust features as required.

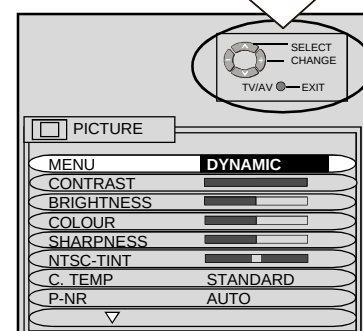


An on screen help box is displayed whenever a menu is displayed on the TV. This help box indicates which keys on the remote control are used to navigate the menu shown. See above for descriptions of button functions.

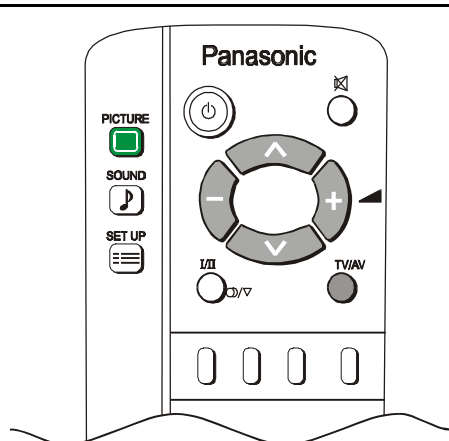
Note:

The help box is not shown in the menu pictures in this manual due to space limitations.

ON SCREEN HELP
Instruction box



Picture Menu Operation

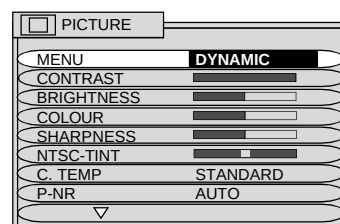


- 1 Push the PICTURE button.
 - 2 Move to the option menu using or .
 - 3 Adjust the chosen option using or .
- Push the TV/AV at any time to return to watching TV.

MENU

The MENU control allows you to change the Picture setting between Dynamic, Standard and Soft.

Use the or buttons to switch between settings.



DYNAMIC	For viewing in brightly lit rooms. This menu selects higher than normal levels of Brightness and Contrast.
STANDARD	For viewing in normal (evening lighting) environments. This menu selects the normal levels of Brightness and Contrast.
SOFT	For viewing in a dark room. This menu selects reduced levels of Brightness and Contrast.

CONTRAST, BRIGHTNESS, COLOUR, SHARPNESS, NTSC-TINT

Item	Effect	Function	On-Screen Indication
CONTRAST	 Less More	Adjust for best picture contrast.	
BRIGHTNESS	 Darker Brighter	Adjust for easier viewing of dark pictures such as night scenes.	
COLOUR	 Less More	Adjust the level of colour in the picture.	
SHARPNESS	 Softer Sharper	Adjust to make the picture sharper or softer.	
NTSC-TINT	 Redish Greenish	Adjust for best skin tones.	

Notes:

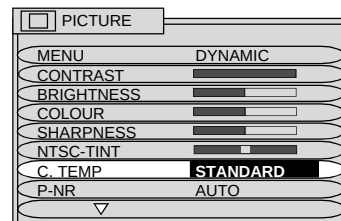
1. You can change the level for each function (Contrast, Brightness, Colour, Sharpness and NTSC-Tint) for each picture menu option.
2. Picture menu levels can be set for TV, AV1, AV2, AV3 and AV4 modes.
3. NTSC-TINT only appears when the TV is receiving NTSC signals.
4. Only CONTRAST and BRIGHTNESS will be displayed when the TV is set to RGB.
5. Only CONTRAST will be displayed in TELETEXT mode.

Picture Menu Operation

C. TEMP

The C. TEMP (Colour Temperature) control allows you to change the White balance setting between Standard, Warm and Cool.

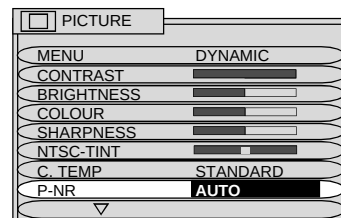
Use the  or  buttons to switch between settings.



P-NR

The P-NR (Picture Noise Reduction) system is designed to reduce picture noise during poor quality reception conditions. Pushing the left or right buttons will change the setting between OFF, STRONG, WEAK and AUTO.

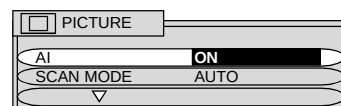
Use the  or  buttons to switch between settings.



AI

When the AI (Artificial Intelligence) is turned on it continually and precisely detects fine differences in the picture signal. It also detects the differences in the brightness, black level and contrast levels.

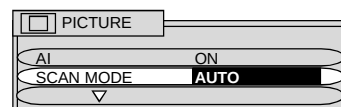
Use the  or  buttons to switch the AI on or off.



SCAN MODE

The SCAN MODE control allows you to change the Picture refresh setting between AUTO, 100Hz MODE and PROGRESSIVE.

Use the  or  buttons to switch between settings.



AUTO

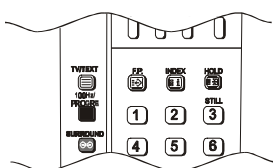
The TV software will select the best mode for the signal being viewed.

100Hz MODE

100Hz will give a steady picture for most signals.

PROGRESSIVE

Recommended when receiving NTSC signals.



Switching is also possible using the  button on the remote control.

Note:

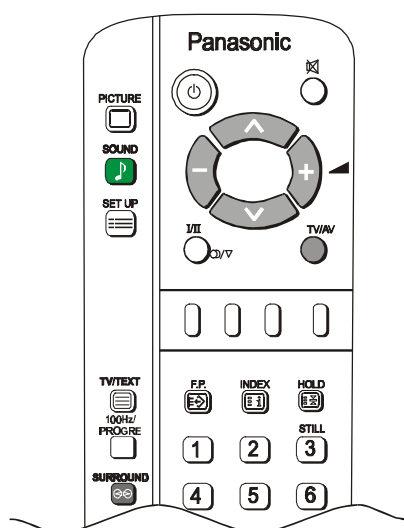
We recommend that you set the SCAN MODE to PROGRESSIVE when viewing a PAL 60 or NTSC transmission. When viewing a PAL transmission (other than PAL 60) with the SCAN MODE set to PROGRESSIVE, the screen will flicker. This is not a fault.

Normalisation

Pushing the Normal () Button on the remote control, when the Picture Menu is displayed will return all picture settings to the factory preset levels. This is called "Normalisation".

Normalisation *will not* occur if the Picture Menu is not displayed when the Normal () Button is Pushed.

Sound Menu Operation



- 1 Push the SOUND button .
- 2 Move to the option menu using  or .
- 3 Adjust the chosen option using  or .

Push the TV/AV  at any time to return to watching TV.

Some features are only available with the SURROUND feature switched off.

Push the  button to switch the SURROUND on or off.

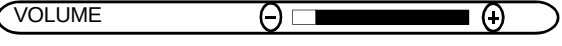
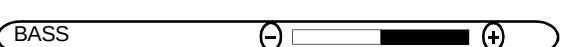
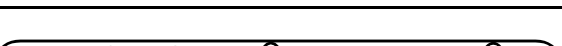
MENU

The MENU control allows you to change the Sound setting between Dynamic, Standard and Soft.

Use the  or  buttons to switch between settings.

DYNAMIC	Amplifies the low frequencies and outputs optimum sound. Used for music programmes.
STANDARD	For normal use.
SOFT	Human voices (middle pitch sounds) will be more clear. Used for News broadcasts etc.

VOLUME, BASS, TREBLE, BALANCE, HEADPHONE VOL.

Item	Effect	Function	On-Screen Indication
VOLUME	  Quieter Louder	Adjusts the output volume.	
BASS	  Cut Boost	Used to boost or cut low frequency sounds.	
TREBLE	  Cut Boost	Used to boost or cut high frequency sounds.	
BALANCE	  Left SP Right SP	Adjusts the sound balance between the left and right speakers.	
HEADPHONE VOL	  Quieter Louder	Adjust for output volume for the headphones.	

Notes:

1. You can change the level for each function (Bass and Treble) for each sound menu option.
2. Sound menu levels can be set for TV, AV1, AV2, AV3 and AV4 modes.
3. BALANCE is not displayed when SURROUND is on.

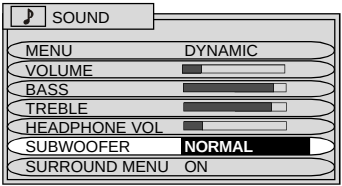
Sound Menu Operation

SUBWOOFER

This function allows you to switch the SUBWOOFER between OFF, NORMAL and FULL modes.

Use the  or  buttons to switch between settings.

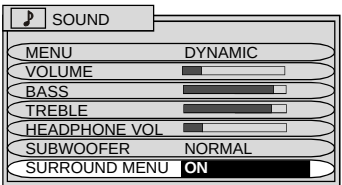
OFF	Turns the SUBWOOFER off.
NORMAL	Provides a mid-level bass effect.
FULL	Provides enhanced bass effect.



SURROUND MENU

This function allows you to switch the Surround Sound on or off.

Use the  or  buttons to switch between settings.

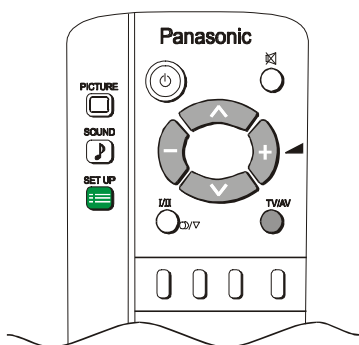


Normalisation

Pushing the Normal () Button on the remote control, when the Sound Menu is displayed will return all picture settings to the factory preset levels. This is called “Normalisation”.

Normalisation *will not* occur if the Sound Menu is not displayed when the Normal () Button is Pushed.

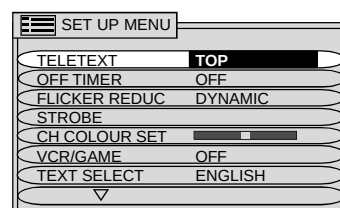
Set Up Menu Operation



- 1 Push the SET UP button .
 - 2 Move to the option menu using  or .
 - 3 Adjust the chosen option using  or .
- Push the TV/AV  at any time to return to watching TV.

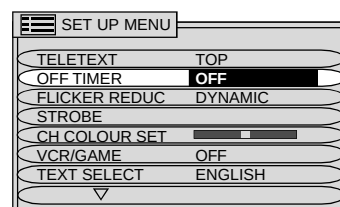
TELETEXT

This control allows you to change between LIST and TOP modes. TOP mode is the current preferred method in Australia. Use the  or  buttons to switch between settings.



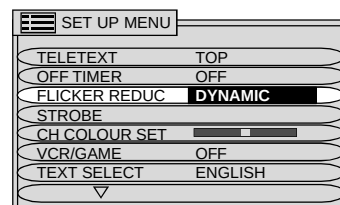
OFF TIMER

The Off-Timer turns the television off after a period of time chosen by you. The timer settings (in minutes) are OFF, 15, 30, 45, 60, 75, 90. Use the  or  buttons to switch between settings.



FLICKER REDUCTION

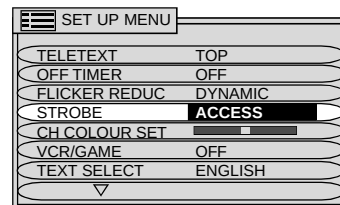
This lets you control any unwanted picture movement. The settings are OFF, NORMAL and DYNAMIC. Use the  or  buttons to switch between settings.



- | | |
|---------|---|
| OFF | No flicker reduction is applied. |
| NORMAL | Used to correct picture movement or if slight ghosting occurs when using DYNAMIC. |
| DYNAMIC | Activates motion compensation to smooth the image and gets rid of picture movement. |

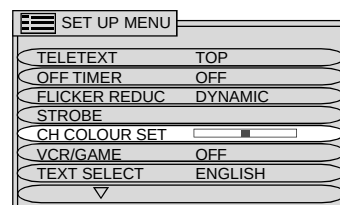
STROBE

Lets you take a series of freeze-frame photos of a piece of action such as the finish or a race etc.



CH COLOUR SET

Colour density varying between broadcast channels can be adjusted to three levels for each channel received. Use the  or  buttons to switch between settings.

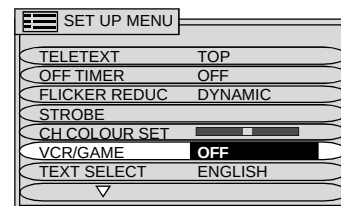


Set Up Menu Operation

VCR/GAME

Reproduction of irregular signals such as certain video games or some rental video tapes may be improved by turning the VCR/GAME feature On.

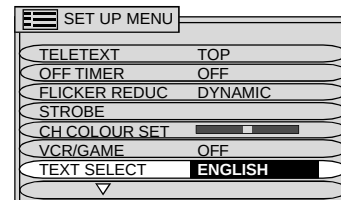
Use the  or  buttons to switch VCR/GAME on or off.



TEXT SELECT

Select the character set so that all characters needed are available for text on teletext pages. The languages available are ENGLISH, CIS and E.EUROPE.

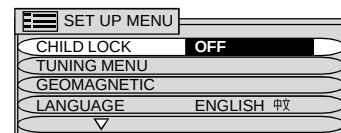
Use the  or  buttons to switch between languages.



CHILD LOCK

CHILD LOCK allows you to "lock out" a channel to prevent a child from watching or hearing a particular programme. Select the channel or AV to be locked before Pushing the SET UP button.

Use the  or  buttons to switch the CHILD LOCK on or off.



COLOUR SYSTEM

COLOUR SYSTEM is only available in AV mode. This option allows you to select the correct colour system for the signal being received. If a clear picture with correct colours cannot be obtained, a change to the Colour System may improve the picture. The settings are AUTO, PAL, NTSC4.43 and NTSC3.58. The Australian colour system is PAL.

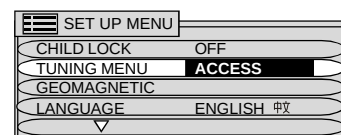
Use the  or  buttons to switch between settings.

Note: PAL and NTSC3.58 are different colour signal broadcast transmission systems applicable to differing countries. NTSC4.43 is a system used in special VCRs to playback NTSC recorded tapes on a PAL television.

TUNING MENU

This provides access to many other features including system select and tuning options.

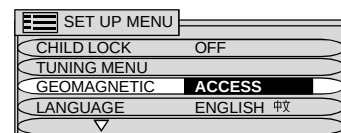
Use the  or  buttons to access the TUNING MENU.



GEOMAGNETIC

If you notice a slight tilt in the picture or if there are coloured patches at the corners of the screen, use this feature to eliminate them.

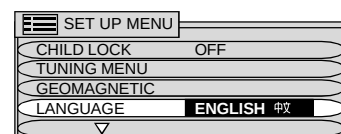
Refer to page 31.



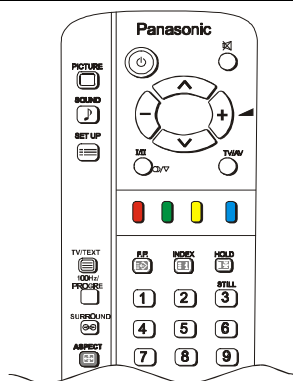
LANGUAGE

When you first install the TV the On Screen Display language is set to English. The language can also be set to Chinese,

Use the  or  buttons to switch between languages.



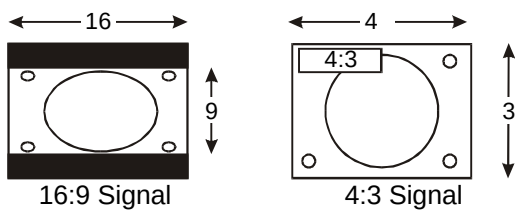
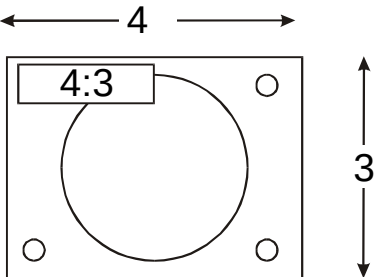
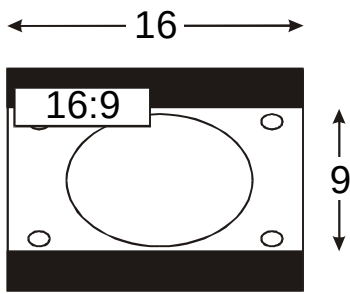
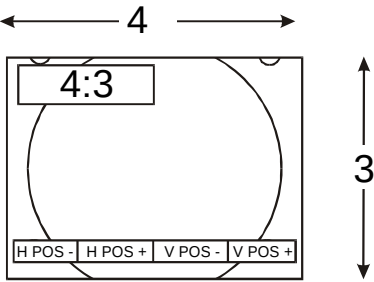
Aspect Controls



ASPECT

Push the ASPECT button  to select the different Aspect options. The options available are 4:3, 16:9 and S-ZOOM.

During AV mode the options available are AUTO, 4:3, 16:9 and S-ZOOM.

Mode	Picture	Description
AUTO		When a wide screen signal from the special video is detected at the S - Video terminal the TV will select the 16:9 aspect ratio.
4 : 3		This option will display a standard 4:3 picture without any stretching or compression.
16 : 9		The 16:9 option will display the picture at its maximum size but with slight stretching. Black stripes will be visible along the top and bottom of the picture. This is commonly referred to as "letterbox".
S - ZOOM		This option allows you to magnify part of the picture. The coloured buttons let you change the position of the magnified area. RED GREEN YELLOW BLUE  H POS - H POS + V POS - V POS +

TELETEXT Operation

Teletext is only available on certain broadcast channels. The time taken to display the pages and sub-pages is set by the teletext transmitter and not by the television.

Teletext is also used for Closed Captioning of television programmes for the hearing impaired. Closed captions can be found on Teletext Page 801.

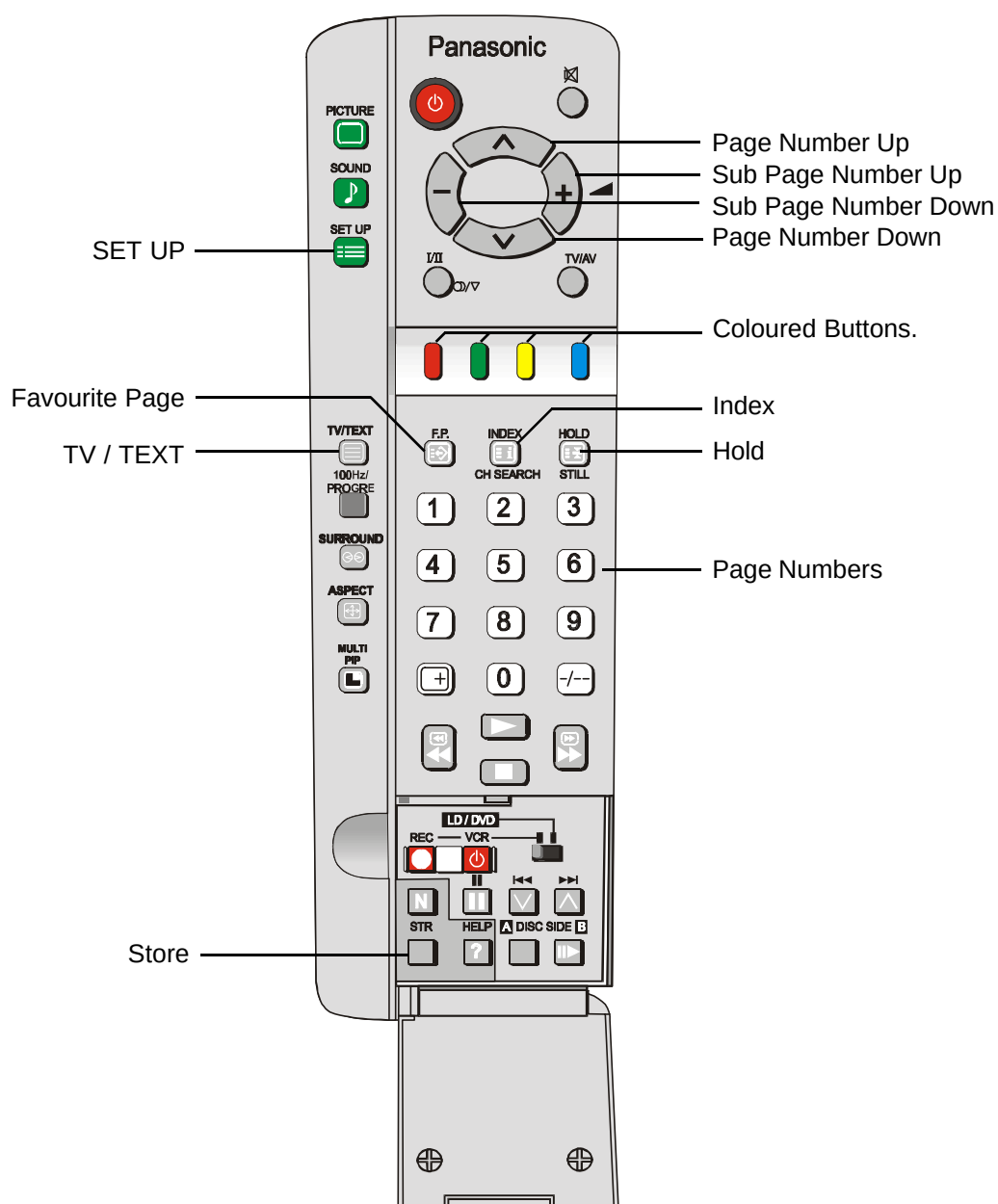
TOP (Table Of Pages) MODE

In TOPTXT mode, the red button moves to the previous page number and the green button moves to the next page number. The yellow and blue buttons correspond to different subjects. These subjects can be accessed by Pushing the coloured button. This is the current preferred method of operation in Australia.

LIST MODE

In LIST mode, four different coloured page numbers are shown at the bottom of the screen. Each of these numbers can be altered and stored in the TV's memory. These coloured page numbers correspond to the colour coded buttons on the remote control.

Please refer to page 17 for instructions on how to change modes between TOP and LIST.



TELETEXT Operation

BUTTON

WHAT IT DOES



F.P. (FAVOURITE PAGE)

This feature will store a favourite page in the TV memory.

1. The TV must be in the LIST mode, receiving a teletext broadcast and the programme number must be between 1 and 25. Please refer to page 20.
 2. Push the Blue button.
 3. Select the page number.
 4. Push and hold the STR button until the screen flashes.
 5. The page number is now stored.
- Push F.P. to recall this page.



SET UP

Used with the Coloured buttons to access the Reveal, Full / Top / Bottom, Display Cancel and Time Text functions.

Push the TV/TEXT Button  to return to normal television viewing.



TV / TEXT

Pushing this button switches the screen between:

- TELETEXT
- Television picture on the left of the screen and the TELETEXT on the right of the screen.
- Normal television viewing.

When TEXT is on, the sound from the broadcast channel is still audible. To adjust the volume press the Sound  button or the  button to display the volume indicator. The volume can then be adjusted normally.



STR

This button is used to store page numbers into the coloured buttons or the Favourite Page button. The STR button is located behind the remote control door.



PAGE NUMBERS UP AND DOWN

These buttons are used to move to higher or lower page numbers.



SUB PAGE NUMBERS UP AND DOWN

These buttons are used to move to higher or lower sub page numbers.



COLOURED BUTTONS

These buttons refer to different page numbers in LIST mode and different subjects in TOP mode.



INDEX

Pushing this button returns you to the main index page.



HOLD

Some TELETEXT pages contain multi-page information. Use this button to stop the page changing. Push it again to release the hold.



PAGE NUMBER BUTTONS

These buttons allow you to directly enter the page number that you want to view.

Please refer to drawing on Page 19 for location of Teletext Control Buttons.

TELETEXT Operation

REVEAL Some Text pages contain concealed information, e.g. the solution to a puzzle. To reveal this information Push the Set Up  button followed by the Red  button. To hide the information, Push the Red button again.

F/T/B (FULL/TOP/BOTTOM) This button is used when difficulty is experienced in reading text on the screen. To operate the F/T/B Push the Set Up  button followed by the Green  button. Operating the F/T/B expands and displays the upper half of the screen. Operating the F/T/B Button again expands and displays the lower half of the screen. Operating the F/T/B Button a third time returns the display to normal condition.

DISPLAY CANCEL If you wish to watch the television while you are waiting for a page to be transmitted you can use the DISPLAY CANCEL function.

This function is not available (or necessary) when the picture and the TELETEXT are both being displayed side by side.

Push the Set Up  button followed by the Yellow  button to view the TV picture while waiting for a teletext page to be transmitted. When found, the page number will be displayed the at the top left of the screen.

News Flash or Other Updates

When a news flash page (or another page which provides regular updates) has been selected Push the Set Up  button followed by the Yellow  button to view the TV picture. When a news flash is received the page number will be displayed on the screen. Push the Yellow  button to display the news flash.

TIME TEXT * When a Page has more than one screen (sub-page) of information, you may have to wait for some time before the sub-page you require becomes available. With this function it is possible to enter the number of the desired sub-page.

1. Select Text Mode and choose a page.
2. Push the Set Up  button followed by the Blue  button. T**** will be displayed at the top left of the screen.
3. Enter the sub page number before the T**** disappears. The sub-page number must be entered as a four digit number e.g. sub-page 3 would be entered as 0003. (If in LIST mode, a "T" will appear in the current box at the bottom).
4. Push the Yellow  button to view the TV picture while waiting for the subpage to be found. (This function is not necessary when the picture and the TELETEXT are both being displayed side by side).
5. When found, Push the Yellow  button

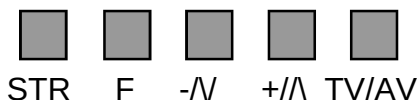
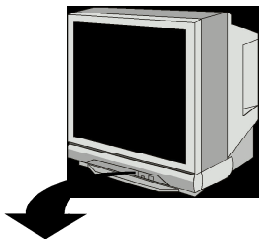
To clear the page perform one of the following:

- Push the Set Up  button.
- Select a new page number.
- Push the TV/TEXT Button  to return to normal television viewing.

* **Note:** TIME TEXT is not currently available in Australia.

Tuning Menu

FRONT PANEL CONTROLS

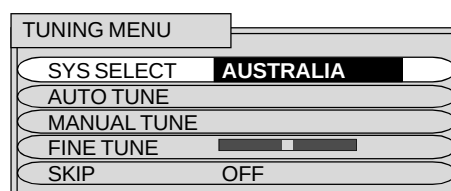


1. Push the button repeatedly until the Tuning Menu is reached.
2. Push the or Button to select the Tuning Menu.
3. Push the button to access the Tuning Menu.
4. Adjust the chosen option or menu using or .

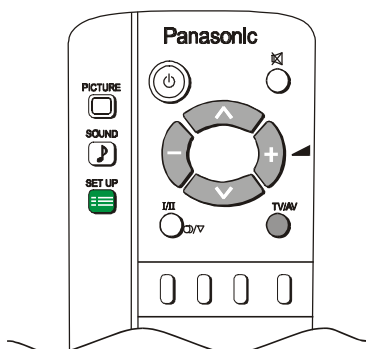
Pushing after making an adjustment will store the setting as the default (and will replace the factory setting).

Push the button to return to the Tuning Menu.

Push on the remote control at any time to return to watching TV.



REMOTE CONTROL

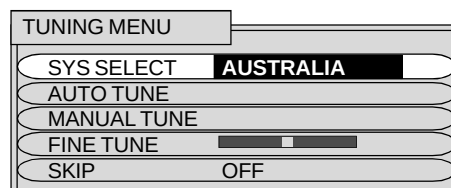


1. Push the SET UP button .
2. Select the Tuning Menu using or .
3. Access the Tuning Menu using or .
4. Move to the required option or menu using or .
5. Select, adjust or switch the chosen option using or .

Pushing the STR button after making an adjustment will store the setting as the default (and will replace the factory setting). The STR button is located behind the door of the remote control - refer to page 7.

Push the SET UP button to return to the Tuning Menu.

Push on the remote control at any time to return to watching TV.



Tuning Menu

Channel Allocation

The channel allocation is as follows:

SYS SELECT CH DISP	AUSTRALIA RECEIVED CHANNEL	NZ/INDONESIA
0	-	-
1	0	1
2	1	2
3	2	3
4	3	4
5	4	5
6	5	6
7	S2	7
⋮	⋮	⋮
11	S6	11
⋮	⋮	-
15	S10	-
16	6	-
⋮	⋮	-
19	9	-
20	9A	-
21	10	21
22	11	⋮
23	12	⋮
24	S11	⋮
⋮	⋮	⋮
28	⋮	⋮
57	S44	⋮
58	20	⋮
59	21	⋮
⋮	⋮	⋮
73	⋮	⋮
74	⋮	S'1
75	⋮	S'2
76	⋮	S'3
77	⋮	-
78	⋮	-
79	⋮	-
80	⋮	S1
81	⋮	S2
⋮	⋮	⋮
89	⋮	S10
⋮	⋮	⋮
118	80	⋮
⋮	⋮	⋮
120	-	S41
⋮	-	-
125	-	-

SYS Select

This option allows you to switch the television system between the Australian and the New Zealand / Indonesian system.

Using the Front Panel

1. Push the  button repeatedly until the Tuning Menu is reached. (See page 22).
2. Push the  or  Button to access the Tuning Menu.
3. Push the  button to select SYS SELECT.
4. Push the  or  Button to switch between AUSTRALIA and NZ/INDONES.
5. To return the television to normal operation push the  button on the remote control or repeatedly push the  button until the volume display appears.

Using the Remote Control

1. Push the Set Up () button.
2. Push the  or  button to access the Tuning Menu. (See page 22).
3. Push the  or  button to select the Tuning Menu.
4. Push the  or  button to select the SYS SELECT.
5. Push the  or  Button to switch between AUSTRALIA and NZ/INDONES.
6. Push the  button to return the television to normal operation.

Tuning Menu

Auto Tune

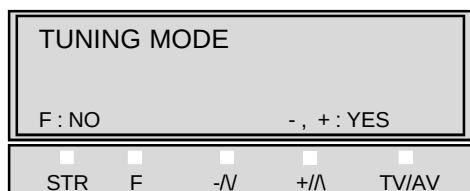
This television has been factory tuned to all major city channels. Use the automatic tuning procedure only if you wish to reset ALL Programme Location Numbers. Refer to "Manual Tune" on page 27 if you only want to retune one or two Programme Location Numbers.

The television should be switched ON and the TV/AV Switch set to TV.

When you start the automatic search, the television will automatically search for television broadcasts through both VHF bands and the UHF band. During this process all of the available television broadcast channels will be automatically allocated to sequential Programme Number locations depending on the mode selected (See page 25).

Using the Front Panel

1. Push the  button repeatedly until the Tuning Menu is reached. (See page 22).
2. Push the  or  Button to access the Tuning Menu.
3. Push the  button to access Auto Tune.

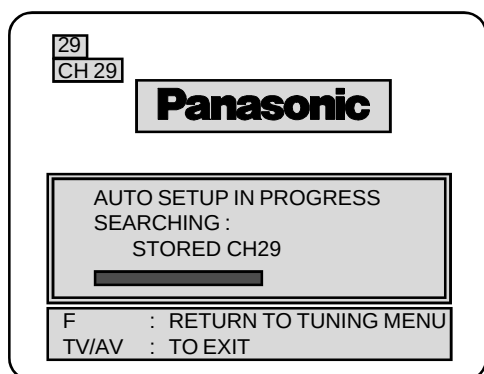


4. Push the  or  Button to start the search.

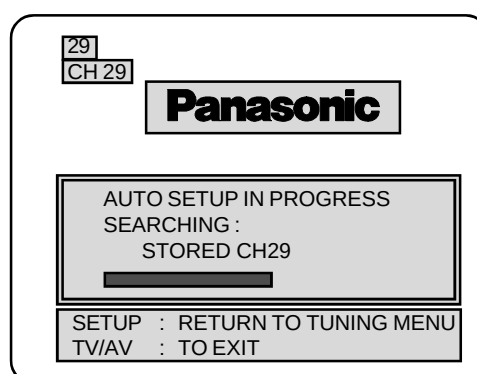
Using the Remote Control

1. Push the Set Up () button.
2. Push the  or  button to select the Tuning Menu. (See page 22).
3. Push the  or  button to access the Tuning Menu.
4. Push the  or  button to select the Auto Tune.
5. Push the  or  button to start the Auto Tune.

The television will automatically allocate each received broadcast signal to a Programme Number. As each station is stored the Panasonic logo will appear momentarily. The operation will cease when all available channels have been tuned.



Push the  button to return the television to the Tuning Menu.



Push the Set Up () button to return the television to the Tuning Menu.

Push the TV/AV  button to return the television to normal operation.

Tuning Menu

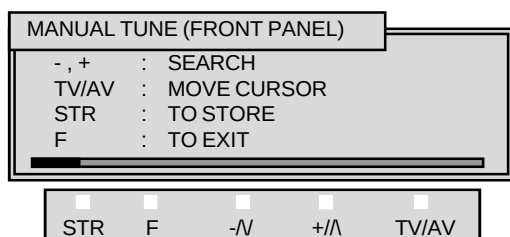
Manual Tune

This Television has been factory tuned to all the major city channels. Use this tuning procedure only if you wish to reset individual Programme Numbers.

The television should be switched ON and the TV/AV Switch set to TV.

Using the Front Panel

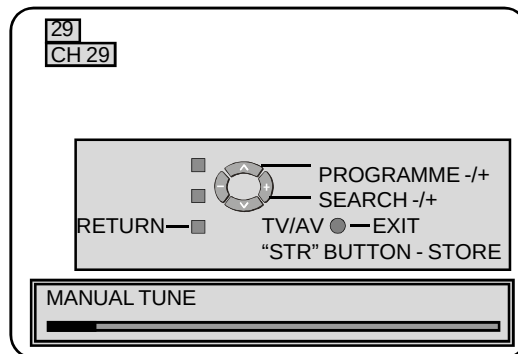
1. Push the  button repeatedly until the Tuning Menu is reached.
2. Push the  or  Button to access the Tuning Menu. (See page 22).
3. Push the  button to select Manual Tune.
4. Push the  or  button to access Manual Tune.



5. Push the  button to switch to "Change Programme".
6. Use the  or  buttons to select the programme location number to tune.
7. Push the  button to switch to "Search".
8. Push the  or  button to start the search.
9. The television will automatically search for the next broadcast signal. As each station is found the search will stop. If you do not want this station restart the search.
10. Push the  to store the selected station.
11. Push the  button to return the television to the Tuning Menu.
12. To return the television to normal operation push the  button on the remote control or repeatedly push the  button until the volume display appears.

Using the Remote Control

1. Push the Set Up () button.
2. Push the  or  button to select the Tuning Menu. (See page 22).
3. Push the  or  button to access the Tuning Menu.
4. Push the  or  button to select the Manual Tune.



5. Push the  or  button to select the Manual Tune.
6. Push the  or  button to access the programme location number to tune.
7. Push the  or  button to start the search.
8. The television will automatically search for the next broadcast signal. As each station is found the search will stop. If you do not want this station restart the search.
9. Push the  to store the selected station.
10. Push the Set Up () button to return the television to the Tuning Menu.
11. Push the  button to return the television to normal operation.

Tuning the Television to a VCR

1. Turn the VCR On and either start a known tape playing or set the VCR Test Signal, if fitted, to On (refer to the VCR operating instructions).
2. Perform the Manual Tuning procedure above. The television will treat the VCR as if it was a normal television broadcast station.

NOTES:

1. The antenna lead must be connected to the VCR and the VCR RF-Out must be connected to the TV RF-In. Please refer to page 34.
2. The picture and sound quality are usually much better if the VCR is connected using the AV Terminals. Please refer to page 35.

Tuning Menu

Fine Tune

In areas of poor reception or constant interference a slight adjustment to the tuning may improve the picture quality.

Using the Front Panel

1. Select the Programme location number you want to fine tune.
2. Push the  button repeatedly until the Tuning Mode is reached. (See page 22).
3. Push the  or  Button to access the Tuning Menu.
4. Push the  button to access Fine Tune.
5. Push the  or  Button to fine tune the station.
6. The television will fine tune in the direction chosen by you.
7. Push the  to store the selected station.
8. Push the  button to return the television to the Tuning Menu.
9. To return the television to normal operation push the  button on the remote control or repeatedly push the  button until the volume display appears.

Using the Remote Control

1. Select the Programme location number you want to fine tune.
2. Push the Set Up () button.
3. Push the  or  button to select the Tuning Menu. (See page 22).
4. Push the  or  button to access the Tuning Menu.
5. Push the  or  button to select the Fine Tune.
6. Push the  or  button to start the fine tune.
7. The television will fine tune in the direction chosen by you.
8. To store the selected station, push the .
9. Push the Set Up () button twice to return the television to the Set Up menu.
10. Push the  button to return the television to normal operation.

Canceling the Fine Tuning

To cancel the Fine Tuning follow the Manual Tune procedure on page 25.

Skip

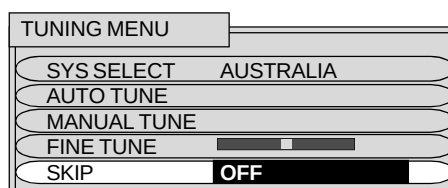
This option allows you to "Skip" (bypass) the unused or undesired Programme Numbers. The Function is only applicable when the Programme Number Up or down buttons are Pushed. The use of the remote control Direct Programme Number Buttons overrides the Skip function.

Using the Front Panel

1. Select the Programme location number you want to "Skip"
2. Push the  button repeatedly until the Tuning Mode is reached. (See page 22).
3. Push the  or  Button to access the Tuning Menu.
4. Push the  button to select SKIP.
5. Push the  or  Button to turn the SKIP on or off.
6. To store the SKIP setting, push the .
7. To return the television to normal operation push the  button on the remote control or repeatedly push the  button until the volume display appears.

Using the Remote Control

1. Select the Programme location number you want to "Skip".
2. Push the Set Up () button.
3. Push the  or  button to access the Tuning Menu. (See page 22).
4. Push the  or  button to select the Tuning Menu.
5. Push the  or  button to select the SKIP.
6. Push the  or  button to turn SKIP on or off.
7. To store the SKIP setting, push the .
8. Push the  button to return the television to normal operation.



Geomagnetic Correction

Magnetic interference may come from such things as unshielded motors, moving the TV while it is switched ON, turning off a vacuum cleaner too close to the TV, lightning strikes nearby or many other things.

Slight tilting of the picture may be noticeable or coloured patches may sometimes appear at the corners of the screen (colour purity).

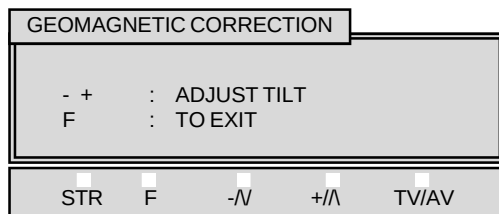
The Geomagnetic Correction feature can be used to eliminate some interference problems.

Quite often simply switching your Television OFF with the Power On/Off Switch (not with the remote control) for 30 minutes and then switching it back ON will cure the problem.

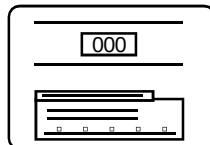
Geomagnetic corrections can be made from the remote control or from the TV set.

Using the Front Panel

1. Push the F (Function) button repeatedly to access the Geomagnetic Correction menu.



2. Push -/V or +/Λ to adjust the picture tilt or coloured patches as necessary.

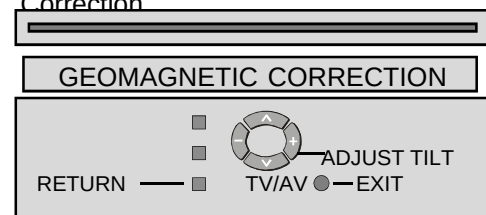


The adjustment range is from -8 to +8.

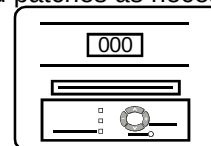
3. Push the F button to return to normal viewing.

Using the Remote Control

1. Push the SET UP button .
2. Select the Geomagnetic Correction menu by Pushing  or .
3. Push  or  to access the Geomagnetic Correction



4. Push  or  to adjust the picture tilt or coloured patches as necessary.



The adjustment range is from -8 to +8.

5. Push the SET UP button to return the TV to the Set Up menu.

OR

6. Push the TV/AV button to return to normal viewing.



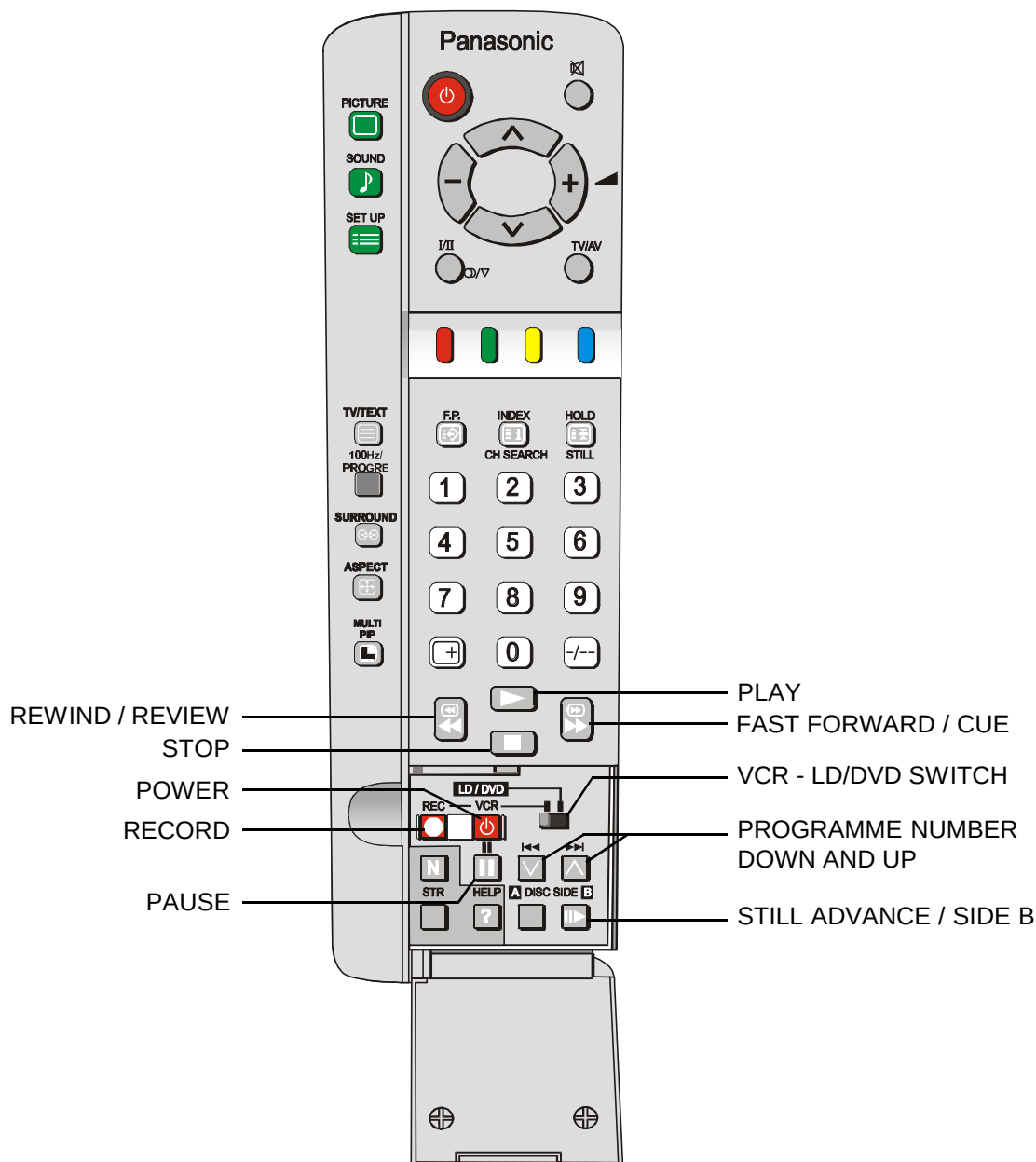
Helpful Hint

1. If geomagnetic changes cause colour patches on the screen switch your Television OFF with the Power On/Off Switch (not with the remote control) for 30 minutes and then switch it back ON.
2. Adjustment for geomagnetic should be performed every time the location of the TV is changed.
3. In some cases colour patches will not be completely eliminated even after adjustment, particularly in ferro-concrete buildings and other structures susceptible to geomagnetic effects. In these cases the TV location will have to be changed.

Remote Control VCR/LD/DVD Operation

This remote control has been designed to work with a variety of VCRs, Laser Dis players and DVD players.

Please refer to page 34 for details of manufacturers' codes.



* WARNING:

Unauthorised recording of material from Television Broadcasts or from other video and/or audio sources may contravene copyright laws.

Remote Control VCR/LD/DVD Operation

Remote Control VCR/LD/DVD Buttons and Switch

Button / Switch	Function	
	VCR	LD/DVD
	REWIND / REVIEW Used to rewind the tape quickly or watch the tape in reverse.	REWIND / REVIEW Used to play the disc in reverse while watching the picture.
	STOP Used to stop the VCR.	STOP Used to stop the LD/DVD.
	POWER BUTTON Used to switch the VCR ON or OFF (Standby).	POWER BUTTON Used to switch the LD/DVD ON or OFF (Standby).
	RECORD Push both Record and Play buttons to Start recording.	
	PAUSE Pauses the tape during play.	PAUSE Pauses the disc during play.
	PLAY Used to start the VCR playing.	PLAY Used to start the LD/DVD playing.
	FAST FORWARD / CUE Used to wind the tape forward quickly or to watch the tape at fast speed	FAST FORWARD / CUE Used to watch the disc at fast speed.
	VCR Switch Setting Selects VCR	LD/DVD Switch Setting Selects LD/DVD.
	PROGRAMME NUMBER DOWN AND UP Used to select the next Higher or lower programme number.	PROGRAMME SKIP Used to skip tracks on the disc.
	STILL ADVANCE Used to advance the tape One frame at a time. Used With the Pause button.	DISC SIDE B SELECTION Used to select the B side of the disc.
		DISC SIDE A SELECTION Used to select the A side of the disc.

Please refer to drawing on Page 28 for location of VCR/LD/DVD Control Buttons.

Remote Control VCR/LD/DVD Operation

Manufacturers' Code Settings

This remote control has been designed to work with a variety of VCRs, Laser Disc players and DVD players. In order for this to occur, the setting for the VCR, LD or DVD must be programmed into the Remote Control.

1. To set a VCR, slide the remote control VCR-LD/DVD switch  to VCR.
To set a LD or DVD, slide the remote control VCR-LD/DVD switch  to LD/DVD.
2. Push the remote control VCR - LD/DVD Power Button  and keep it Pushed.
3. Enter the Manufacturer's two-digit code number using the remote control Number Buttons **0** ~ **9** (The codes are shown below).
4. Push the STOP button .
5. Release the remote control VCR or LD/DVD Power Button .
6. Check the operation of the VCR, LD or DVD. If it does not operate correctly, repeat steps 1 to 5 and use an alternate code (if there is one).

VCR CODES

Manufacturer	Code	Manufacturer	Code
Panasonic / National	10, 11, 12, 13	NEC	40, 41, 42, 43
AIWA	15, 16	ORION	45, 46
FUJITSU	20	Philips	50
HITACHI	25, 26, 27	SANYO	55, 56, 57, 58
JVC	30, 31, 32	SHARP	60, 61
mitsubishi	35, 36	SONY	65, 66, 67
		TOSHIBA	70, 71

LD CODES

Manufacturer	Code	Manufacturer	Code
Panasonic	10, 11, 12, 13	SAMSUNG	30
KENWOOD	15, 16	SHARP	35
PHILIPS	20	SONY	40, 41, 42, 43
PIONEER	25		

DVD CODES

Manufacturer	Code	
Panasonic	70	

NOTES:

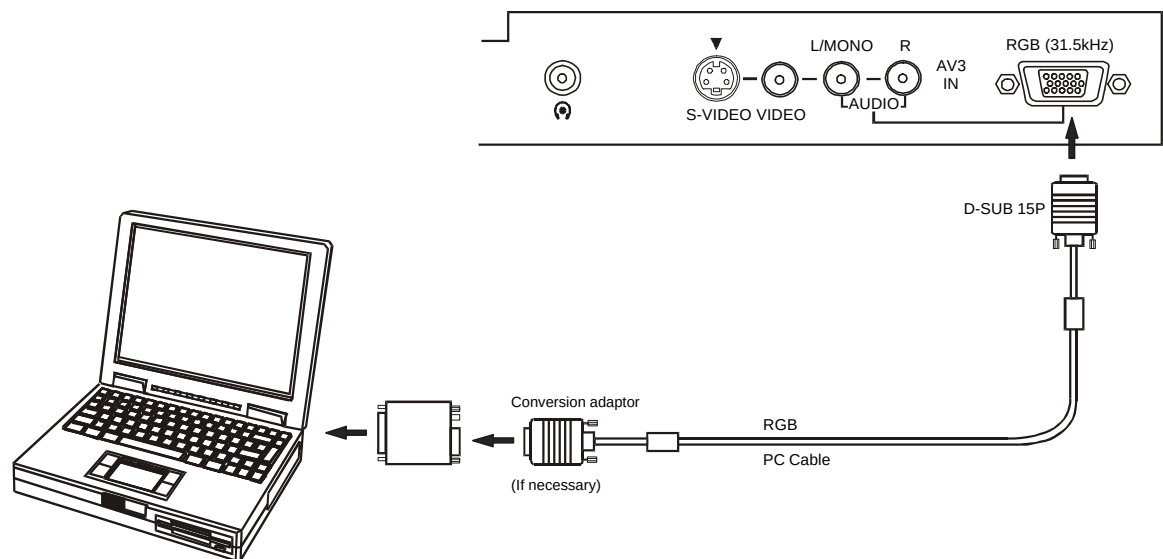
1. If the batteries are removed from the remote control the Manufacturer's codes are lost and must be reprogrammed.
2. The list of manufacturer's codes is given as a guideline only. Panasonic cannot guarantee that any other manufacturer's product will work with this remote control.

Connecting Equipment to the TV

Front Panel Connections

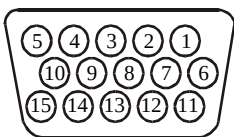
Connecting to the RGB Input Terminals

Behind the front panel door is the headphone socket, the AV3 input and the RGB input.



- Personal computers (PC) with 640 x 480 (31.5kHz / 60Hz) or 640 x 400 (31.5kHz / 70Hz) resolution can be connected to this television.
Note: the display will prompt you to set the resolution to 640 x 400.
- The computer must be set to High Colour (16 bit).
- In some cases other PCs may not work with this TV set.
- There is no audio signal in RGB mode.
- Connect the sound cables to the AV3 Audio Input terminals.
- Some computers such as PC-98 and Macintosh require a commercially sold adaptor between the RGB cable (D-Sub 15P) and the computer.
- There is no need for an adaptor when using computers with a DOS/V compatible D-Sub 15P terminal.

Signal names for D-Sub 15P Connector



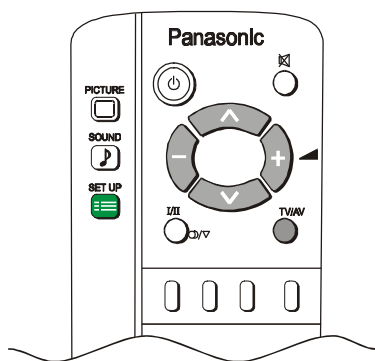
Pin layout for RGB Terminal.

Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
1	R	6	GND	11	GND
2	G	7	GND	12	NC
3	B	8	GND	13	HD/SYNC
4	GND	9	NC	14	VD
5	GND	10	GND	15	NC

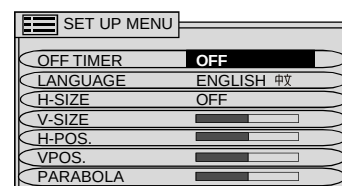
GND is Ground NC is Not connected

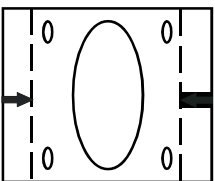
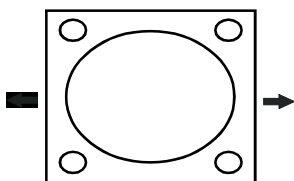
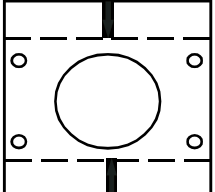
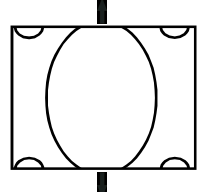
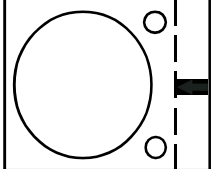
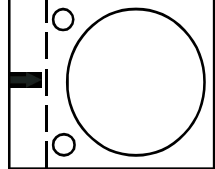
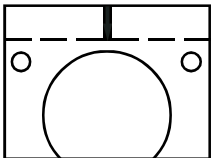
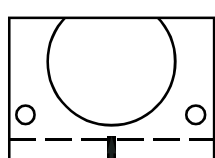
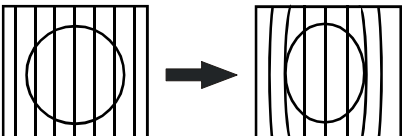
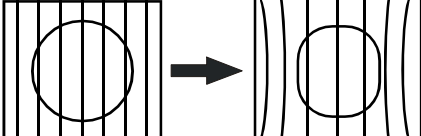
Connecting Equipment to the TV

Adjusting the RGB Picture



- 1 Push the TV/AV button .
 - 2 Push the Yellow button to select RGB mode.
 - 3 Push the SET UP button .
 - 4 Move to the option using  or .
 - 5 Adjust the chosen option using  or .
- Push  at any time to return to watching TV.



OPTION	EFFECT	
	Push 	Push 
H-SIZE		
V-SIZE		
H-POS		
V-POS		
PARABOLA		

Connecting Equipment to the TV

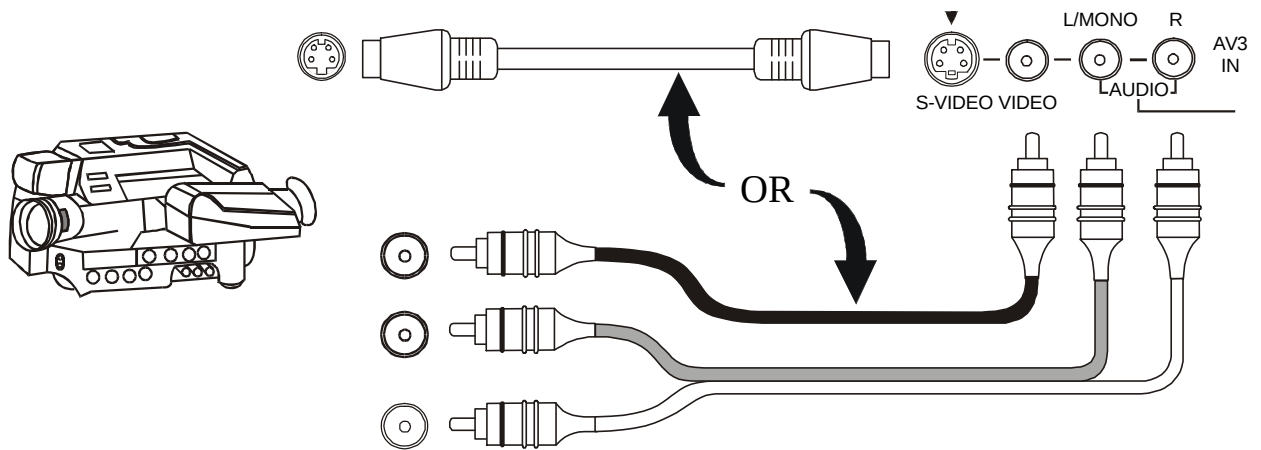
*** NOTE ***

Headphones and connecting cables for Antennas, VCRs, LDs DVDs and Amplifiers etc. are not supplied with this television.

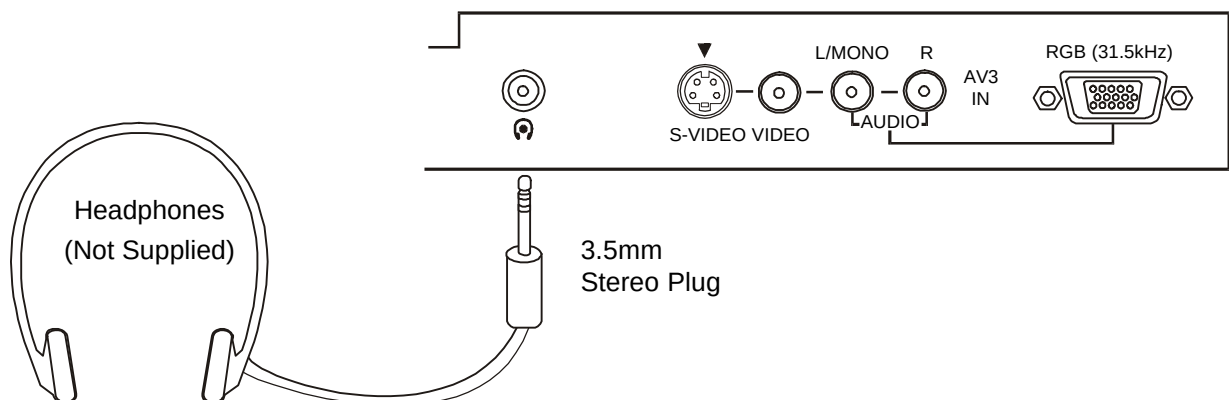
Front Panel Connections

The front input terminals allow quick and easy access for computer games, video cameras and other equipment which is not usually permanently connected.

AV Equipment



Headphones

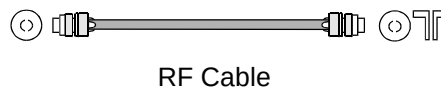


Connecting Equipment to the TV

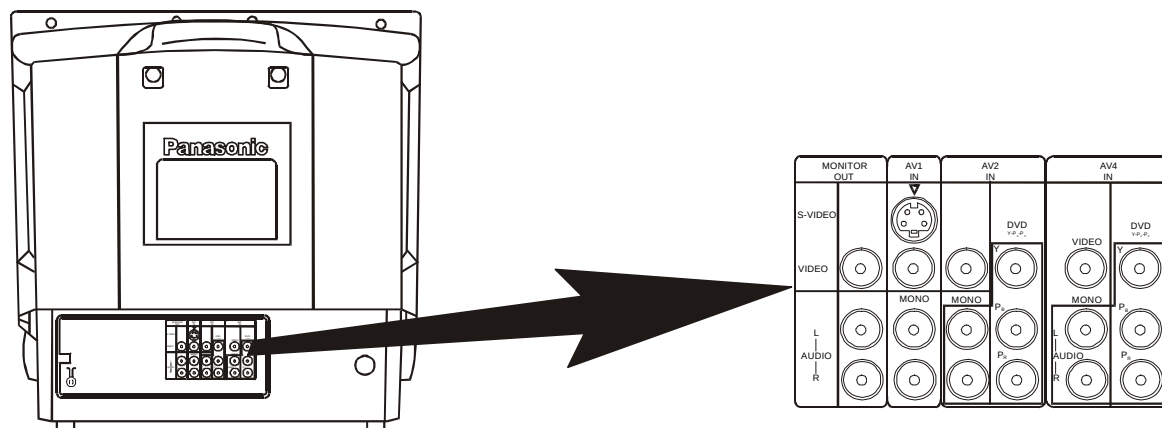
Rear Panel Connections

When using a VCR with the television *always* connect the Aerial to the VCR and connect an RF Cable (not supplied) between the VCR RF-Out and the television RF-In.

You can watch videos by either tuning the television to the VCR (see page 27) or by connecting the VCR to the rear AV terminals.



Note: When connecting a mono VCR through the RF-In, please switch the TV to mono.



Monitor Out

The Monitor Out terminals reproduce the signals currently on the television screen. The on-screen signals could be a television programme or signals connected to one of the AV inputs.

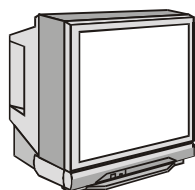
The Monitor Out facility can be used to allow one video source (videotape, video disc etc.) to be connected to more than one television. Connect the Monitor out from this television to the AV Input of the second television.

If a video recorder is connected to the Monitor Out and video sources (VCR, video disc, camera etc.) are connected to one or more of the AV inputs, the television becomes a visual display for tape editing or copying. Unauthorised recording of material from Television Broadcasts or from other video and/or audio sources may contravene copyright laws.

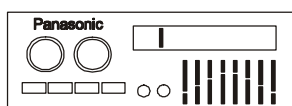
The Monitor Out Audio can also be connected to a stereo amplifier or other hi-fi equipment.



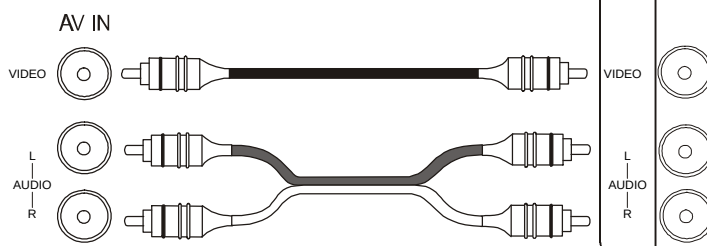
VCR



TV USED AS A MONITOR



AUDIO AMPLIFIER
(No Video Connection)



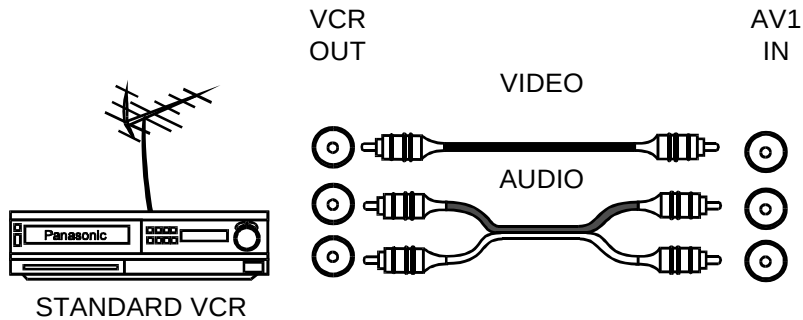
NOTE:

Never connect the same video recorder or other device to both the VIDEO IN and MONITOR OUT terminals of this television as this could cause incorrect operation.

Connecting Equipment to the TV

Connecting a Standard VCR to the AV Input

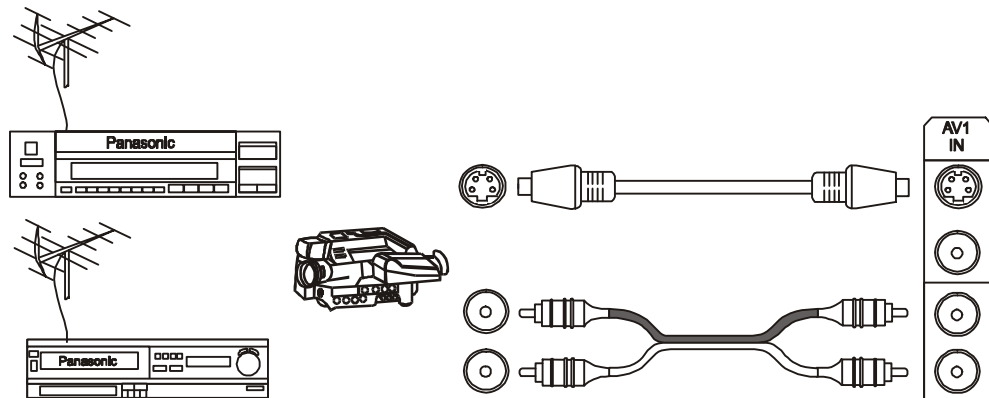
Most standard Video Cassette Recorders use RCA type video and audio connectors. If your VCR has different type connectors please refer to the VCR instruction book for details.



NOTE: A mono VCR can be connected to this television. Connect the VCR Audio out to the Left Audio input on the television. The sound will Automatically be directed to both speakers.

Connecting S-Video Equipment to the AV Input

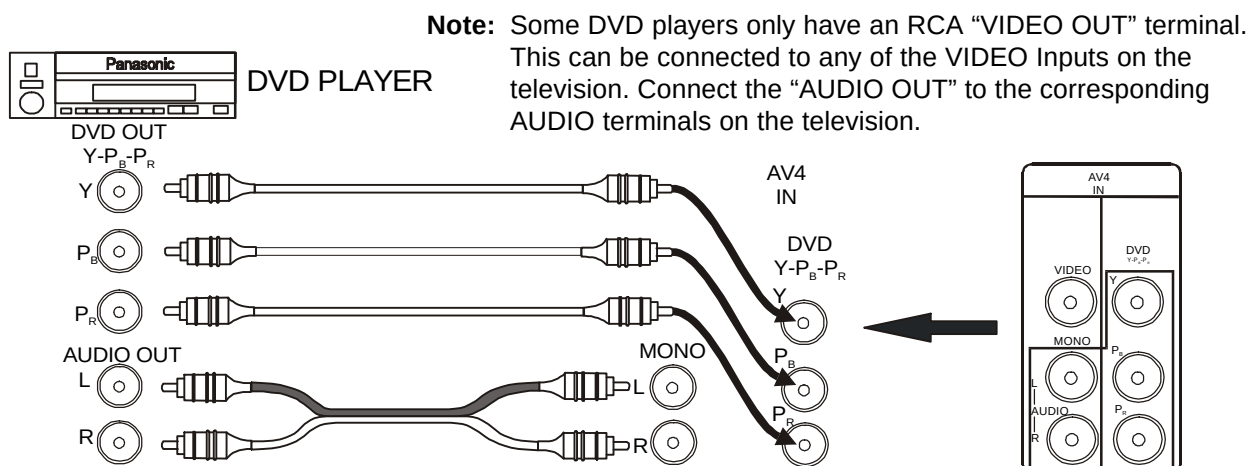
S-Video equipment uses a 4Pin Mini Din (Male) plug for the video and RCA plugs for the audio. When an S-Video cable is connected to an S-Video input terminal, the RCA video terminal for that AV position will be disconnected.



Connecting DVD Equipment to the AV Input

The audio and video inputs on the television are RCA type connectors.

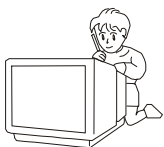
Connect the Y, PB and PR outputs from the DVD to the AV4 IN DVD Inputs on the television, as shown below. Connect the "AUDIO OUT" to the AV4 IN AUDIO terminals on the television.



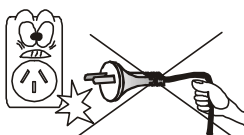
Customer Information

To keep your Panasonic Television in good working order please observe the following warnings and cautions. Please be careful with this television. Like all electrical equipment it can cause serious injury or damage if it is mistreated.

Warnings



Danger
Do not insert foreign objects. (Keep metal or easily inflammable objects out of this television).



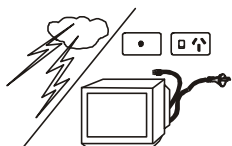
Danger
Always pull the plug out of the wall outlet by holding the plug itself.
Do not pull the plug by the power cord.



Danger: High Voltage
Do not remove the rear cover, as High Voltage components will be exposed.



Danger
Do not alter the power cord.
Do not use if the power cord or plug is damaged or if the plug does not fit tightly into the socket.



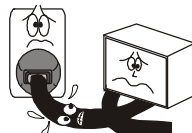
DO NOT touch the aerial cable and metal parts of the television when there is lightning around. During storms switch the television off. **DO NOT** leave in standby. Remove the plug from the wall socket.



Do not allow the power cord to come into contact with flame or hot surfaces.

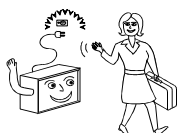


Do not place any containers of water or other liquids on or near this television.



Do not place heavy objects on the power cord.

Cautions

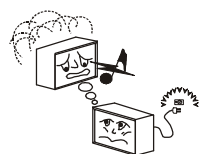


Remove the Power Plug from the wall socket when the Television is not going to be used for an extended period of time.

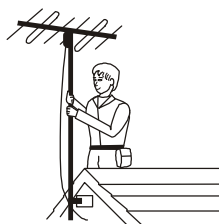


Turn the power OFF before connecting other electrical equipment.

Safety First



In the advent of unusual operation (e.g. odd sounds, smoke or aromas), turn the television Off and remove the power cord from the wall socket. Then call the Television Service Centre: this may reduce the possibility of expensive repair costs.



Any external aerial should be installed by a reputable qualified installer and should comply with Australian Standard AS1417.1.

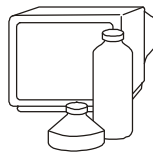
Customer Information

Cleaning the Television

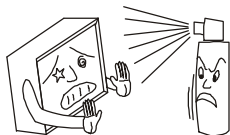


Cabinet and Picture Tube Care

The cabinet and picture tube can be kept in good condition by wiping with a clean, lint free cloth moistened with mild detergent and water. For safety, remove the plug from the power outlet when cleaning.



This television contains many plastic parts. For this reason **Do Not** use benzene, thinners or any solutions containing petroleum or other chemicals.

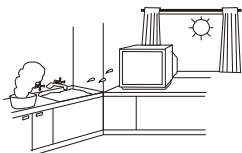


Do not spray insecticide or volatile solvent on the TV. **Do not** allow rubber and vinyl products to stay in contact with the TV for long periods of time. They may cause changes in paint quality.

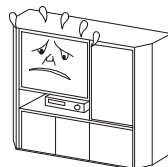


Remove dirt and soiling by wiping with a soft cloth. Even if the television is heavily soiled do not apply cleaner directly to the unit. Soak a cloth in a solution of neutral cleanser thinned with water. Wring out the cloth, wipe the television clean and finish by wiping with a dry cloth.

Locating the Television



Do not place the TV in humid or dusty locations, or areas exposed to smoke or steam. Avoid exposing the television to direct sunlight or any other sources of direct heat.



Adequate ventilation is essential. Allow a gap of at least 10cm around the TV, even in a cabinet or between shelves.

Caring for the Television



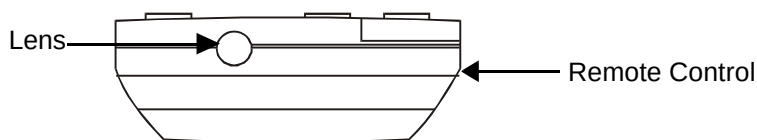
Do not stand or place heavy objects on top of the television.



Do not subject the TV to any physical shocks. Always remove any connector cables when moving the TV. When moving the TV from one place to another wrap it in something protective.

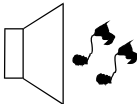
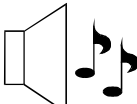
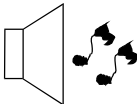
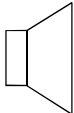
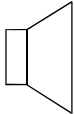
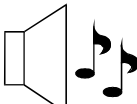
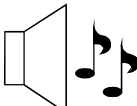
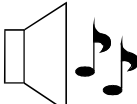
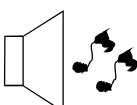
Caring for the Remote Control

The lens of the Remote Control should be kept clean and free of dirt and grease. Use a soft cloth moistened with water and a mild detergent to keep the lens clean.



Customer Information

Troubleshooting

Picture	Sound	Check
 Snowy Picture	 Noisy Sound	Aerial Location, Direction or Connections. If you are watching a tape playback check the state of the Video heads – they may need to be cleaned or replaced. The tape may be old. Check the tracking.
 Multiple Image	 Normal Sound	Aerial Location, Direction or Connections.
 Interference	 Noisy Sound	Electrical Appliances, Motorcycles, Cars or Fluorescent Lamps.
 Normal Picture	 No Sound	Volume (Check the Mute function) Check the COLOUR SYS. (Refer to page 17).
 No Picture	 No Sound	Not plugged in, switched OFF or Set to Stand By. Check volume, brightness, and contrast levels. Various internal safety devices may have been triggered. Switch the TV off for a few minutes and try again.
 No Colour	 Normal Sound	Colour Control. If the picture is from a tape playback, try adjusting the tracking. Check the COLOUR SYS. (Refer to page 17).
 Scrambled	 Normal or Weak Sound	Retune the Television. (Refer to page 25). Check the COLOUR SYS. (Refer to page 17).
 Colour Patches	 Normal Sound	Magnetic Interference from unshielded equipment or the television may have been moved while it was switched ON. (Switch the television OFF with the main power switch and leave it OFF for about 30 minutes. Refer to page 27.
 Rolling Picture	 Noisy Sound	Picture Menu (Refer to page 12). Sound Menu (Refer to page 14). Check the COLOUR SYS. (Refer to page 17).

Specifications

Tuning System	Frequency synthesized. POSITION: 100 Position (0 to 99). DIRECT: 125 Position (0 to 124)	
RF Channels	VHF 0 to 12 UHF 21 to 69 S'1 to S'3 S1 to S41	PAL B PAL G HYPER TUNER
Receiving Systems	1. PAL B/G	Reception of Off air broadcasts Playback from Video Tape Recorders
	2. NTSC 4.43 3. NTSC 3.58 4. PAL 60Hz	Playback from Special Video Tape Recorders and Special Video Disc Players (Via the AV Sockets) only.
Power Requirements	240Volts ± 10% 50Hz	
Power Consumption	206W Max	3W Stand-By
Chassis	EURO7	
Picture Tube	68cm Viewable (Measured diagonally)	
Audio Output	2 Way 4 Speakers Plus AFB Woofer (12W + 12W + 12W)	
Headphone Socket	3.5mm Stereo	
Aerial Impedance	75Ω Unbalanced coaxial	
Video / Audio Terminals	AV1 IN (Rear) : S-Video, Video, Audio L/R Terminals AV2 IN (Rear) : Video or Y/P _B /P _R , Audio L/R Terminals AV3 IN (Front) : S-Video, Video, Audio L/R Terminals AV4 IN (Rear) : Video or Y/P _B /P _R , Audio L/R Terminals	
Video / Audio Input	S-Video Y : 1.0Vp-p 75Ω C: 0.3Vp-p 75Ω Video in 1.0Vp-p, 75Ω Audio in Approx. 400mVrms 47kΩ	
Monitor Out	Video Out 1.0Vp-p, 75Ω Audio Out Approx. 400mVrms 1kΩ	
RGB Terminals	High-DENSITY D-Sub 15pin	
RGB Input	31.5kHz / 60Hz (640 x 480 dot) and 31.5kHz / 70Hz (640 x 400 dot)	
Accessories Supplied	Remote Control EUR511216, 2 Type 'AA' Batteries Instruction Manual TQB4A0143-1	
Dimensions	H = 61.2cm, W = 65.2cm, D = 51.7cm	
Weight	53kg (Net)	
Note: Design and Specifications are subject to change without notice. Weight and Dimensions shown are approximate.		

Customer's Record

The serial number of this product can be found on its rear cover and on the carton. It is recommended that you note the serial number and other details in the space provided and retain this booklet in a safe place as a permanent record of your purchase to aid in identification in the event of theft or loss.

Model No. TX - 68P200A

Serial No. PA - _____

Purchase Date _____

Purchased From _____



Matsushita Electric Co. (Aust) Pty Ltd

P.O. Box 326 Penrith NSW 2751

ACN: 000 611 389

Certified to International Environmental Standard ISO14001

Certified to International Quality Standard AS/NZS ISO9001



What's New
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Panasonic

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